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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,337	07/31/2001	Roger A. Stern	019519-000310US	4149

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EXAMINER

EISEN, ALEXANDER

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,337

Applicant(s)

STERN ET AL.

Examiner

Alexander Eisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “three light sensors” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 18 is objected to because of the following informalities: in the second line from the bottom “light in the and environment of the user” looks like a typographic error, “and” should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 26, 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no disclosure of how three light sensors are positioned to determine the source of multidirectional light relative to

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the user. The utility of such arrangement is also not disclosed, which gives a rise to utility problem under 35 USC 101.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-6, 8, 10-14 and 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kuga, US 5,686,940.

With respect to claims 1 and 18 Kuga discloses a computer system for monitoring the use of a display (1) by a user and having a display (1) performing a task (manipulating images, scrolling, zooming etc.); and a first sensor (2) positioned relative to display and being a distance light sensor. An analysis of the measurement is output from a computer (5) to a driver circuit (6) for controlling the display (1) accordingly to the detected distance.

As to claim 3 the display in Kuga's system is LCD.

As to claims 4 and 11, the sensor is incorporated into a supporting structure of the display and placed on the top of the display (col. 2, lines 48-49).

As to claim 5, CCD is made of a plurality light sensors (pixels) (col. 2, lines 49-55).

As to claim 6, the sensor is the imaging sensor (CCD).

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As to claim 8, the system comprises a computer (5) for processing inputs from the sensor (col. 3, lines 29-43).

As to claim 10, the sensor is positioned to monitor the display depending on the display distance from the user.

As to claim 12, the user constitutes a remote input device (col. 4, lines 22-27) by controlling various computer related tasks, such as scrolling or zooming, for example, by changing the distance between the display and the user.

As to claim 13, the sensor is a distance sensor (col. 2, line 48).

As to claim 14, the sensor is a light sensor (col. 2, lines 49-53).

7. Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fateh et al., ("Fateh"), US 6,076,928.

With respect to claims 15, 17 and 18, Fateh discloses a computerized method for determining a viewing distance including positioning a user in front of a display, allowing the distance sensor to measure a viewing distance and receiving the analysis of the measurement and notifying a user of measured distance (372 in FIG. 12; col. 7, lines 7-15).

8. Claims 16, 22, 23, 25 and 28-31 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by NEC SOFTWARE LTD, ("NEC"), JP 2000-098991.

With respect to claims 16, 22, 23 and 25 NEC discloses a display system comprising a display (1); a first sensor (13) being a distance sensor and a second sensor (12) being a light (luminance) sensor.

As to claim 28, the readings from sensors 12 and 13 (FIG. 1) are input into a computer (2), which controls the brightness and contrast based on the readings and setting criteria storage

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means (31) (paragraphs [0018-0023]). The process is shown in flow-chart in FIG. 3, and it is inherent for a computer to run on corresponding to this chart software program.

As to claim 29, the computer system of NEC determines a user's viewing distance from the output of the distance sensor (13).

As to claims 30 and 31, the computer system of Sakai, which runs on software program accepting sensor input representing distance and light measurements over time.

9. Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by George, US 6,606,130 B1.

With respect to claim 18 George discloses a method for determining a light setting for a user using a display using a light sensor (sensors S1-S8 in FIG. 1) positioned to a known position relative to the display, positioning the user in front of the display, and allowing the light sensor to measure light in the environment of the user, receiving an analysis of the measurement.

As to claim 19, George further teaches that the method comprises suggesting a change in light amount in the environment (col. 5, line 55 - col. 6, line 10).

10. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Jeon, US 5,877,841.

Jeon discloses a method for testing a user's vision using a display comprising positioning a user in front of the display, displaying a test pattern (col. 50-65; FIGS. 8A-H) according to an acuity test, selecting a test result (by user's response to his/her perception of the pattern (characters of different sizes or Landolt circles), and receiving an analysis of test result (notifying the user of measured eyesight, see claim 14 of Jeon).

11. Claims 26, 27 and 35 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pan, US 5,367,315.

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With regards to claim 26 Pan discloses a system comprising a display used by a user; a first sensor (one of the infrared sensors 23 and FIG. 2) positioned close to the display and being a light sensor; a second sensor distinct from the first sensor (any other light sensor 23), and a third sensor distinct from the first and second sensors (any other than the first and the second light sensors 23).

As to claim 27, Pan discloses multiple light sensors (23) that are capable to determine a source of multi-directional light relative to the user (the light emitted by multiple light transmitters 22 and reflected back by user's head or body to the sensors 23).

As to claim 35, Pan discloses a software program for processing inputs from sensors and for displaying test patterns on the display (col. 7, lines 41-45).

12. Claims 32-34 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wawro et al., ("Wawro"), US 5,838,424.

In regard to claim 32 Wawro discloses a system for eye examination comprising a display (CRT 54); a first sensor (74) positioned close to the display and being a light sensor (col. 6, lines 56-64); and a software program for processing inputs from the sensor and for displaying a test pattern on the display (col. 3, lines 38-55; col. 5, line 58 - col. 6, line 31).

As to claim 33, the test pattern can be an acuity test or a visual field test etc. (col. 3, lines 45-55).

As to claim 34, Wawro teaches a second sensor (76) distinct from the first sensor (74).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuga in view of Richardson et al., ("Richardson"), US 6,433,759 B1.

Kuga discloses a computer system for monitoring the use of a display (1) by a user and having a display (1) performing a task (manipulating images, scrolling, zooming etc.); and a first sensor (2) positioned relative to display and being a light sensor.

Kuga does not disclose a communication link between the system and a computer system accessible by hypertext protocol, or that the sensor is connected to the system through a cable and capable of monitoring blink rate.

Richardson teaches a computer system having light sensors for controlling a computer (FIG. 2), wherein the system is connected to the Internet (col. 4, lines 18-31), the imaging sensors (112 and 122) housed in a headset (70) is connected to the computer through a cable (62); and the system is capable of monitoring blink rate (FIG. 18; col. 4, lines 38-46).

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to modify the system of Kuga by the teachings of Richardson by adding the ability to detect a blink rate, since Kuga lends itself conveniently to incorporating this feature by already having built-in imaging sensor for detecting a distance, because it would allow to emulate "mouse clicks" and provide additional instructions to the computer (Richardson; col. 4, lines 43-46; col. 13, lines 17-62).

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fateh et al., ("Fateh"), US 6,076,928 in view of Jeon, US 5,877,841.

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Fateh discloses a method for determining a recommended viewing distance for a user viewing display comprising displaying a suggestion regarding recommended viewing distance (FIG. 12; col. 7, lines 7-15).

Fateh does not disclose that the displaying of recommended viewing distance is based on query and response to the query.

Jeon teaches an eye examination system presenting test patterns and based on interaction between a user and system, such as query, which is responded to by the user, and measured distance between the user and a display (FIG. 8A-H; column 3, line 44 - column 50).

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to provide Fateh with the test ability of Jeon, because it would allow Fateh to display recommended distance for viewing a display, by optimizing this distance value based on the test performed by Jeon, wherein a user's perception is measured based on the distance, i.e. to include the user's vision acuity as a factor into a recommendation.

16. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over NEC.

With respect to claim 24 NEC discloses a display system comprising a display (1); a first sensor (13) being a distance sensor and a second sensor (12) being a light (luminance) sensor, and a distance sensor measuring the distance from the light sensor to the user's body.

NEC does not disclose that the second sensor is incorporated into a first sensor, but it would have been obvious to one of ordinary skill in the art at the time when the invention was made that the two sensor have to be positioned close in order to perform the above measurements and therefore "the constituents parts can be so combined as to constitute a unitary whole", i.e. to make these parts integral. See *In re Larson*, 144 USPQ 347 (CCPA 1965).

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Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kushelvesky, US 5,668,743, discloses a method for vision testing having a distance sensor and displaying a test pattern.

Stern et al., US 6,592,223 B1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is **(703) 306-2988**.

The examiner can normally be reached on M-F (9:00 a.m. - 4:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on **(703) 305-4709**.

Any response to this action should be **mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or **faxed to:**

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be **brought to:** Crystal Park Two, 2121 Crystal Drive, Arlington, Virginia, Sixth Floor Receptionist.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be **directed to:** Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read 'Alexander Eisen', with a stylized flourish at the end.

Alexander Eisen
November 23, 2003